

Confidentiality Requested:

Yes No

Kansas Corporation Commission Oil & Gas Conservation Division 1236100

Form ACO-1 August 2013 Form must be Typed Form must be Signed All blanks must be Filled

# WELL COMPLETION FORM WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License #	API No. 15
Name:	Spot Description:
Address 1:	SecTwpS. R 🔲 East 🗌 West
Address 2:	Feet from North / South Line of Section
City: State: Zip:+	Feet from East / West Line of Section
Contact Person:	Footages Calculated from Nearest Outside Section Corner:
Phone: ()	□NE □NW □SE □SW
CONTRACTOR: License #	GPS Location: Lat:, Long:
Name:	(e.g. xx.xxxxxx) (e.gxxx.xxxxxx)
Wellsite Geologist:	Datum: NAD27 NAD83 WGS84
Purchaser:	County:
Designate Type of Completion:	Lease Name: Well #:
New Well Re-Entry Workover	Field Name:
□ Oil □ WSW □ SHOW   □ Gas □ D&A □ ENHR □ SIGW   □ OG □ GSW □ Temp. Abd.   □ CM (Coal Bed Methane) □ Cathodic □ Other (Core, Expl., etc.):   □ If Workover/Re-entry: Old Well Info as follows:   Operator:  Well Name:	Producing Formation:  Elevation: Ground: Kelly Bushing: Feet  Total Vertical Depth: Plug Back Total Depth: Feet  Multiple Stage Cementing Collar Used? Yes No  If yes, show depth set: Feet  If Alternate II completion, cement circulated from: sx cmt.
Original Comp. Date: Original Total Depth:  Deepening Re-perf. Conv. to ENHR Conv. to SWD  Plug Back Conv. to GSW Conv. to Producer	Drilling Fluid Management Plan (Data must be collected from the Reserve Pit)
□ Commingled         Permit #:	Chloride content: ppm Fluid volume: bbls  Dewatering method used:  Location of fluid disposal if hauled offsite:
GSW Permit #:	Cuerter See Two S R Total West
Spud Date or Date Reached TD Completion Date or Recompletion Date	QuarterSec.         TwpS. R East West           County:         Permit #:

#### **AFFIDAVIT**

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

**Submitted Electronically** 

KCC Office Use ONLY
Confidentiality Requested
Date:
Confidential Release Date:
Wireline Log Received
Geologist Report Received
UIC Distribution
ALT I II III Approved by: Date:

# 1236100

Operator Name:			Lease Name:			Well #:	
Sec Twp	S. R	East West	County:				
open and closed, flow	ring and shut-in pressu	ormations penetrated. Dres, whether shut-in preith final chart(s). Attach	ssure reached stati	c level, hydrosta	tic pressures, bott		
		tain Geophysical Data a r newer AND an image f		gs must be ema	iled to kcc-well-lo	gs@kcc.ks.gov	v. Digital electronic log
Drill Stem Tests Taker (Attach Additional S		Yes No			on (Top), Depth an		Sample
Samples Sent to Geo	logical Survey	☐ Yes ☐ No	Nam	9		Тор	Datum
Cores Taken Electric Log Run		Yes No					
List All E. Logs Run:							
		0.0000					
		CASING Report all strings set-o	RECORD Ne onductor, surface, inte		ion, etc.		
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Durmaga	Depth		CEMENTING / SQU	EEZE RECORD			
Purpose: Perforate	Top Bottom	Type of Cement	# Sacks Used		Type and P	ercent Additives	
Protect Casing Plug Back TD							
Plug Off Zone							
Did you perform a hydrou	ulia fracturing tractment or	a this well?		Yes	No (If No, ski	n quantiana 2 an	(d 2)
	ulic fracturing treatment or otal base fluid of the hydra	aulic fracturing treatment ex	ceed 350,000 gallons?	= =	= ' '	p questions 2 an p question 3)	u 3)
Was the hydraulic fractur	ring treatment information	submitted to the chemical o	disclosure registry?	Yes	No (If No, fill	out Page Three	of the ACO-1)
Shots Per Foot		N RECORD - Bridge Plug			cture, Shot, Cement		
	Specify Fo	ootage of Each Interval Perf	orated	(Ai	mount and Kind of Ma	terial Used)	Depth
TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run:	Yes No		l
Date of First, Resumed	Production, SWD or ENH	R. Producing Meth		Gas Lift C	Other <i>(Explain)</i>		
Estimated Production Per 24 Hours	Oil B		Mcf Wate			as-Oil Ratio	Gravity
DISPOSITIO	ON OF GAS:		METHOD OF COMPLE	TION:		PRODUCTIO	DN INTERVAL:
Vented Sold		Open Hole	Perf. Dually	Comp. Cor	mmingled	1110000110	TO THE LEVILLE
	bmit ACO-18.)	Other (Specify)	(Submit A	ACO-5) (Sub	mit ACO-4)		

Form	ACO1 - Well Completion
Operator	Unit Petroleum Company
Well Name	Feedlot 22 #1H
Doc ID	1236100

### Tops

Name	Тор	Datum
Heebner Shale	3263	1769
Brown Lime	3447	
Lansing/Kansas City	3462	
Stark Shale	3726	
Hushpuckney Shale	3756	
Pleasanton Shale	3810	
Cherokee Shale	3879	
Mississippi	3913	

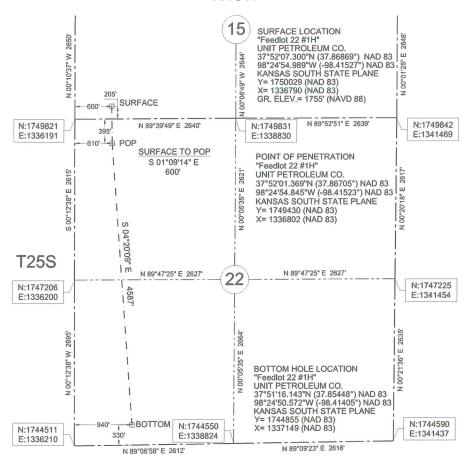
Form	ACO1 - Well Completion
Operator	Unit Petroleum Company
Well Name	Feedlot 22 #1H
Doc ID	1236100

### Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	17.5	13.375	48	212	Н	300	2% cc
Intermedia te	12.25	9.625	36	1504	Н	280	2% cc .25# celloflake
Intermedia te	8.75	7	26	4365	AA-2	160	2% cc .25# celloflake
Production	6.125	5.5	17	8841	50/50 POZ	400	2% cc .25# celloflake
Production	6.125	4.5	11.6	8841	50/50 POZ	400	2% cc .25# celloflake

# Sections 15 & 22, T 25 S, R 10 W., Reno County, Kansas.

#### **R10W**





LEGEND SECTION LINE ---- 1/4 SECTION LINE

Datum: NAD 83 Units: US Survey Feet North: Grid Coordinates: State Plane Zone: 3502 State: Kansas Region: South





Description: Surface Hole Location Stake "Feedlot 22 #1H" situated 205 feet from the south section line and 600 feet from the west section line of Section 15, T 25 S, R 10 W., Reno County, Kansas.

Description: Point of Penetration "Feedlot 22 #1H" situated 395 feet from the north section line and 610 feet from the west section line of Section 22, T 25 S, R 10 W., Reno County, Kansas.

Description: Bottom Hole Location "Feedlot 22 #1H" situated 330 feet from the south section line and 940 feet from the west section line of Section 22, T 25 S, R 10 W., Reno County, Kansas.



Survey is valid only if print has original seal and signature of surveyor present



JIVIDENS LAND SURVEY CO., INC.

1210 19TH STREET / P.O. BOX 943
WOODWARD, OKLAHOMA 73802
Phone 580-256-7174 - Fax 580-256-3424
er@jividenslandsurvey.com mike@jividenslandsurvey.com

Survey For: Unit Petroleum Co. P.O. Box 2726 Woodward, OK 73802 Attn: Jason Rummery JOB DATE OF PLAT 248-14 06-10-2014

1"=1200' 1 OF 5

DRAWN B

OKLA. CA #2064, EXP. 06/30/2015 KANSAS CA #143, EXP. 12/31/2014

SCALE

### **Unit Petroleum**

Reno County, Kansas [NAD 83] Section 15 T25S-R10W Feedlot 22 #1H

OH

Design: OH

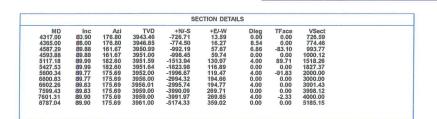
## **Standard Survey Report**

09 October, 2014





Unit Petroleum
Project: Reno County, Kansas [NAD 83]
Site: Section 15 7255-R10W
Well: Feedlot 22 #1H
Wellbore: OH
Design: Design #3
Lat: 37\* 52\* 7.296 N
Long: 98\* 24\* 64.989 W
Pad GL: 1755.00
KB: 14\* KB @ 1769.00usft (UDI 331)



			WELL DETAIL	S: Feedlot 22 #1H		
+N/-S 0.00	+E/-W 0.00	Northing 1750029.00	Ground Lev Easting 1336790.00	rel: 1755.00 Latittude 37° 52' 7.296 N	Longitude 98° 24' 54.989 W	Slot

NOTE: All Lease lines and Hard lines are estimates only and are subject to the customers' approval.

PROJECT DETAILS: Reno County, Kansas [NAD 83]

Geodetic System: US State Plane 1983 Datum: North American Datum 1983 Ellipsoid: GRS 1980 Zone: Kansas Southern Zone

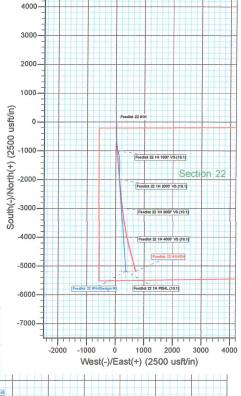
System Datum: Mean Sea Level

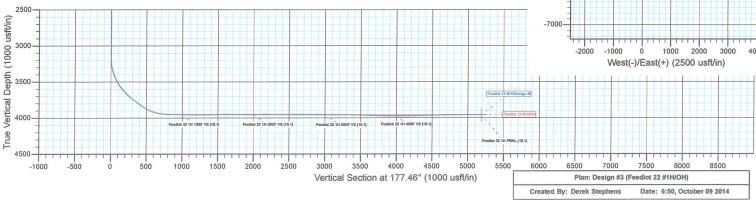


Azimuths to Grid North True North: -0.05° Magnetic North: 4.49°

Magnetic Field Strength: 51994.6snT Dip Angle: 65.74° Date: 9/15/2014 Model: IGRF2010









Company:

Unit Petroleum

Project:

Reno County, Kansas [NAD 83]

Site: Well: Section 15 T25S-R10W

Feedlot 22 #1H

Wellbore: Design:

OH ОН Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

**Survey Calculation Method:** 

Database:

Well Feedlot 22 #1H

14' KB @ 1769.00usft (UDI 331)

14' KB @ 1769.00usft (UDI 331)

Grid

Minimum Curvature

EDM 5000.1 Single User Db

Project Reno County, Kansas [NAD 83]

Map System: Geo Datum:

US State Plane 1983 North American Datum 1983

Kansas Southern Zone Map Zone:

System Datum:

Mean Sea Level

Using geodetic scale factor

Section 15 T25S-R10W Site

Site Position:

From:

Мар

Northing: Easting:

1,750,023.00 usft 1,339,150.00 usft

Latitude: Longitude: 37° 52' 7.214 N

98° 24' 25.556 W

Position Uncertainty: 0.00 usft Slot Radius: 13-3/16 " **Grid Convergence:** 0.06°

Feedlot 22 #1H Well

Well Position

+N/-S +E/-W 0.00 usft 0.00 usft

Northing: Easting:

1,750,029.00 usft 1,336,790.00 usft Latitude: Longitude:

37° 52' 7.296 N 98° 24' 54.989 W

0.00 usft Wellhead Elevation: usft Ground Level: 1,755.00 usft **Position Uncertainty** 

ОН Wellbore

IGRF2010

**Magnetics Model Name**  Sample Date

9/15/2014

Declination (°)

Dip Angle (°)

65.74

Field Strength

177.46

(nT)

51,995

ОН Design

71.47

Audit Notes:

Version:

1.0

Phase:

ACTUAL

Tie On Depth:

0.00

Vertical Section: Depth From (TVD) +N/-S +E/-W Direction

(usft) (usft) (usft) (°) 0.00 0.00 0.00

4.55

10/9/2014 **Survey Program** Date From To

(usft) (usft)

Survey (Wellbore) **Tool Name** CB-GYRO-MS 3,081.71 Gyro (OH)

Description Camera based gyro multishot

3.170.00 8,841.00 MWD (OH) MWD MWD - Standard

vey									
Measured Depth (usft)	Inclination (°)	Azimuth	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
71.47	0.29	62.93	71.47	0.08	0.16	-0.08	0.41	0.41	0.00
165.54	0.21	73.94	165.54	0.24	0.54	-0.21	0.10	-0.09	11.70
259.61	0.39	96.01	259.61	0.25	1.02	-0.21	0.22	0.19	23.46
353.68	0.36	119.82	353.68	0.07	1.60	0.00	0.17	-0.03	25.31
447.75	0.02	155.20	447.74	-0.09	1.86	0.17	0.37	-0.36	37.61
541.82	0.11	148.74	541.81	-0.18	1.91	0.27	0.10	0.10	-6.87
635.89	0.04	132.43	635.88	-0.28	1.99	0.37	0.08	-0.07	-17.34
729.96	0.11	93.18	729.95	-0.31	2.10	0.40	0.09	0.07	-41.72
824.03	0.28	51.95	824.02	-0.17	2.37	0.28	0.22	0.18	-43.83



Company:

Unit Petroleum

Project:

Reno County, Kansas [NAD 83]

Site:

Section 15 T25S-R10W

Well:

Feedlot 22 #1H

Wellbore: Design:

ОН ОН

Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

**Survey Calculation Method:** 

Database:

Well Feedlot 22 #1H

14' KB @ 1769.00usft (UDI 331)

14' KB @ 1769.00usft (UDI 331)

Grid

Minimum Curvature

Measured Depth (usft)         Inclination (°)         Azimuth (°)           918.10         0.27         30.28           1,012.17         0.27         11.55           1,106.24         0.30         46.66           1,200.31         0.20         76.78           1,294.38         0.24         90.49           1,388.45         0.41         120.07           1,482.52         0.44         135.03           1,576.59         0.50         142.39           1,670.66         0.18         137.12           1,764.73         0.33         126.50           1,858.80         0.45         123.09           1,952.87         0.36         105.89           2,046.94         0.26         115.01           2,141.01         0.37         120.91           2,235.08         0.18         167.83           2,329.15         0.28         214.22           2,423.22         0.05         260.20           2,517.29         0.28         302.05           2,611.36         0.23         344.59           2,799.50         0.22         357.36           2,893.57         0.33         359.87 <td< th=""><th></th><th></th><th>+E/-W</th><th>Vertical Section</th><th>Dogleg Rate</th><th>Build Rate</th><th>Turn Rate</th></td<>			+E/-W	Vertical Section	Dogleg Rate	Build Rate	Turn Rate
918.10 0.27 30.28 1,012.17 0.27 11.55 1,106.24 0.30 46.66 1,200.31 0.20 76.78 1,294.38 0.24 90.49 1,388.45 0.41 120.07 1,482.52 0.44 135.03 1,576.59 0.50 142.39 1,670.66 0.18 137.12 1,764.73 0.33 126.50 1,858.80 0.45 123.09 1,952.87 0.36 105.89 2,046.94 0.26 115.01 2,141.01 0.37 120.91 2,235.08 0.18 167.83 2,329.15 0.28 214.22 2,423.22 0.05 260.20 2,517.29 0.28 302.05 2,611.36 0.23 344.59 2,705.43 0.21 357.00 2,799.50 0.22 357.36 2,893.57 0.33 359.87 2,987.64 0.35 343.24 3,081.71 0.40 328.78 3,170.00 0.10 186.90 3,201.00 2.20 179.40 3,233.00 5.60 179.80 3,264.00 8.90 182.00 3,296.00 12.00 182.60 3,360.00 17.00 180.40 3,391.00 19.50 181.00 3,423.00 21.40 179.50 3,480.00 25.60 178.50 3,512.00 28.80 179.50 3,512.00 28.80 179.50 3,512.00 28.80 179.50 3,512.00 28.80 179.50 3,512.00 28.80 179.50 3,512.00 28.80 179.50 3,512.00 28.80 179.50 3,512.00 28.80 179.50 3,512.00 28.80 179.50 3,512.00 28.80 179.50 3,512.00 34.60 179.80 3,576.00 34.60 179.80							LYCIUG
1,012.17       0.27       11.55         1,106.24       0.30       46.66         1,200.31       0.20       76.78         1,294.38       0.24       90.49         1,388.45       0.41       120.07         1,482.52       0.44       135.03         1,576.59       0.50       142.39         1,670.66       0.18       137.12         1,764.73       0.33       126.50         1,858.80       0.45       123.09         1,952.87       0.36       105.89         2,046.94       0.26       115.01         2,141.01       0.37       120.91         2,235.08       0.18       167.83         2,329.15       0.28       214.22         2,423.22       0.05       260.20         2,517.29       0.28       302.05         2,611.36       0.23       344.59         2,705.43       0.21       357.00         2,799.50       0.22       357.36         2,893.57       0.33       359.87         2,987.64       0.35       343.24         3,081.71       0.40       328.78         3,170.00       0.10       186.90 <th></th> <th></th> <th>(usft)</th> <th>(usft)</th> <th>(°/100usft)</th> <th>(°/100usft)</th> <th>(°/100usft)</th>			(usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)
1,012.17       0.27       11.55         1,106.24       0.30       46.66         1,200.31       0.20       76.78         1,294.38       0.24       90.49         1,388.45       0.41       120.07         1,482.52       0.44       135.03         1,576.59       0.50       142.39         1,670.66       0.18       137.12         1,764.73       0.33       126.50         1,858.80       0.45       123.09         1,952.87       0.36       105.89         2,046.94       0.26       115.01         2,141.01       0.37       120.91         2,235.08       0.18       167.83         2,329.15       0.28       214.22         2,423.22       0.05       260.20         2,517.29       0.28       302.05         2,611.36       0.23       344.59         2,705.43       0.21       357.00         2,799.50       0.22       357.36         2,893.57       0.33       359.87         2,987.64       0.35       343.24         3,081.71       0.40       328.78         3,170.00       0.10       186.90 <td>918.09</td> <td>0.16</td> <td>2.66</td> <td>-0.04</td> <td>0.11</td> <td>-0.01</td> <td>-23.04</td>	918.09	0.16	2.66	-0.04	0.11	-0.01	-23.04
1,106.24       0.30       46.66         1,200.31       0.20       76.78         1,294.38       0.24       90.49         1,388.45       0.41       120.07         1,482.52       0.44       135.03         1,576.59       0.50       142.39         1,670.66       0.18       137.12         1,764.73       0.33       126.50         1,858.80       0.45       123.09         1,952.87       0.36       105.89         2,046.94       0.26       115.01         2,141.01       0.37       120.91         2,235.08       0.18       167.83         2,329.15       0.28       214.22         2,423.22       0.05       260.20         2,517.29       0.28       302.05         2,611.36       0.23       344.59         2,705.43       0.21       357.00         2,799.50       0.22       357.36         2,893.57       0.33       359.87         2,987.64       0.35       343.24         3,081.71       0.40       328.78         3,170.00       0.10       186.90         3,201.00       2.20       179.40 <td>1,012.16</td> <td>0.57</td> <td>2.82</td> <td>-0.44</td> <td>0.09</td> <td>0.00</td> <td>-19.91</td>	1,012.16	0.57	2.82	-0.44	0.09	0.00	-19.91
1,200.31       0.20       76.78         1,294.38       0.24       90.49         1,388.45       0.41       120.07         1,482.52       0.44       135.03         1,576.59       0.50       142.39         1,670.66       0.18       137.12         1,764.73       0.33       126.50         1,858.80       0.45       123.09         1,952.87       0.36       105.89         2,046.94       0.26       115.01         2,141.01       0.37       120.91         2,235.08       0.18       167.83         2,329.15       0.28       214.22         2,423.22       0.05       260.20         2,517.29       0.28       302.05         2,611.36       0.23       344.59         2,705.43       0.21       357.00         2,799.50       0.22       357.36         2,893.57       0.33       359.87         2,987.64       0.35       343.24         3,081.71       0.40       328.78         3,170.00       0.10       186.90         3,201.00       2.20       179.40         3,233.00       5.60       179.80 </td <td>1,106.23</td> <td>0.96</td> <td>3.04</td> <td>-0.82</td> <td>0.19</td> <td>0.03</td> <td>37.32</td>	1,106.23	0.96	3.04	-0.82	0.19	0.03	37.32
1,294.38       0.24       90.49         1,388.45       0.41       120.07         1,482.52       0.44       135.03         1,576.59       0.50       142.39         1,670.66       0.18       137.12         1,764.73       0.33       126.50         1,858.80       0.45       123.09         1,952.87       0.36       105.89         2,046.94       0.26       115.01         2,141.01       0.37       120.91         2,235.08       0.18       167.83         2,329.15       0.28       214.22         2,423.22       0.05       260.20         2,517.29       0.28       302.05         2,611.36       0.23       344.59         2,705.43       0.21       357.00         2,799.50       0.22       357.36         2,893.57       0.33       359.87         2,987.64       0.35       343.24         3,081.71       0.40       328.78         3,170.00       0.10       186.90         3,201.00       2.20       179.40         3,233.00       5.60       179.80         3,296.00       12.00       182.60	1,200.30	1.16	3.38	-1.01	0.17	-0.11	32.02
1,482.52       0.44       135.03         1,576.59       0.50       142.39         1,670.66       0.18       137.12         1,764.73       0.33       126.50         1,858.80       0.45       123.09         1,952.87       0.36       105.89         2,046.94       0.26       115.01         2,141.01       0.37       120.91         2,235.08       0.18       167.83         2,329.15       0.28       214.22         2,423.22       0.05       260.20         2,517.29       0.28       302.05         2,611.36       0.23       344.59         2,705.43       0.21       357.00         2,799.50       0.22       357.36         2,893.57       0.33       359.87         2,987.64       0.35       343.24         3,081.71       0.40       328.78         3,170.00       0.10       186.90         3,201.00       2.20       179.40         3,233.00       5.60       179.80         3,264.00       8.90       182.00         3,328.00       14.60       181.60         3,360.00       17.00       180.40	1,294.37	1.20	3.74	-1.03	0.07	0.04	14.57
1,576.59         0.50         142.39           1,670.66         0.18         137.12           1,764.73         0.33         126.50           1,858.80         0.45         123.09           1,952.87         0.36         105.89           2,046.94         0.26         115.01           2,141.01         0.37         120.91           2,235.08         0.18         167.83           2,329.15         0.28         214.22           2,423.22         0.05         260.20           2,517.29         0.28         302.05           2,611.36         0.23         344.59           2,705.43         0.21         357.00           2,799.50         0.22         357.36           2,893.57         0.33         359.87           2,987.64         0.35         343.24           3,081.71         0.40         328.78           3,170.00         0.10         186.90           3,201.00         2.20         179.40           3,233.00         5.60         179.80           3,264.00         8.90         182.00           3,328.00         14.60         180.40           3,391.00	1,388.44	1.03	4.23	-0.84	0.25	0.18	31.44
1,670.66       0.18       137.12         1,764.73       0.33       126.50         1,858.80       0.45       123.09         1,952.87       0.36       105.89         2,046.94       0.26       115.01         2,141.01       0.37       120.91         2,235.08       0.18       167.83         2,329.15       0.28       214.22         2,423.22       0.05       260.20         2,517.29       0.28       302.05         2,611.36       0.23       344.59         2,705.43       0.21       357.00         2,799.50       0.22       357.36         2,893.57       0.33       359.87         2,987.64       0.35       343.24         3,081.71       0.40       328.78         3,170.00       0.10       186.90         3,201.00       2.20       179.40         3,233.00       5.60       179.80         3,264.00       8.90       182.00         3,296.00       12.00       182.60         3,328.00       14.60       181.60         3,454.00       23.50       178.00         3,454.00       23.50       178.00	1,482.51	0.60	4.77	-0.39	0.12	0.03	15.90
1,764.73       0.33       126.50         1,858.80       0.45       123.09         1,952.87       0.36       105.89         2,046.94       0.26       115.01         2,141.01       0.37       120.91         2,235.08       0.18       167.83         2,329.15       0.28       214.22         2,423.22       0.05       260.20         2,517.29       0.28       302.05         2,611.36       0.23       344.59         2,705.43       0.21       357.00         2,799.50       0.22       357.36         2,893.57       0.33       359.87         2,987.64       0.35       343.24         3,081.71       0.40       328.78         3,170.00       0.10       186.90         3,201.00       2.20       179.40         3,233.00       5.60       179.80         3,264.00       8.90       182.00         3,296.00       12.00       182.60         3,328.00       14.60       181.60         3,454.00       23.50       178.00         3,454.00       23.50       178.00         3,512.00       28.80       179.50	1,576.57	0.02	5.28	0.21	0.09	0.06	7.82
1,858.80       0.45       123.09         1,952.87       0.36       105.89         2,046.94       0.26       115.01         2,141.01       0.37       120.91         2,235.08       0.18       167.83         2,329.15       0.28       214.22         2,423.22       0.05       260.20         2,517.29       0.28       302.05         2,611.36       0.23       344.59         2,705.43       0.21       357.00         2,799.50       0.22       357.36         2,893.57       0.33       359.87         2,987.64       0.35       343.24         3,081.71       0.40       328.78         3,170.00       0.10       186.90         3,201.00       2.20       179.40         3,233.00       5.60       179.80         3,264.00       8.90       182.00         3,296.00       12.00       182.60         3,328.00       14.60       181.60         3,454.00       23.50       178.00         3,454.00       23.50       178.00         3,512.00       28.80       179.50         3,544.00       31.70       179.80 <td>1,670.64</td> <td>-0.41</td> <td>5.63</td> <td>0.66</td> <td>0.34</td> <td>-0.34</td> <td>-5.60</td>	1,670.64	-0.41	5.63	0.66	0.34	-0.34	-5.60
1,952.87       0.36       105.89         2,046.94       0.26       115.01         2,141.01       0.37       120.91         2,235.08       0.18       167.83         2,329.15       0.28       214.22         2,423.22       0.05       260.20         2,517.29       0.28       302.05         2,611.36       0.23       344.59         2,705.43       0.21       357.00         2,799.50       0.22       357.36         2,893.57       0.33       359.87         2,987.64       0.35       343.24         3,081.71       0.40       328.78         3,201.00       2.20       179.40         3,233.00       5.60       179.80         3,264.00       8.90       182.00         3,296.00       12.00       182.60         3,328.00       14.60       181.60         3,423.00       21.40       179.50         3,454.00       23.50       178.00         3,512.00       28.80       179.50         3,544.00       31.70       179.80         3,576.00       34.60       179.30	1,764.71	-0.68	5.95	0.94	0.17	0.16	-11.29
2,046.94         0.26         115.01           2,141.01         0.37         120.91           2,235.08         0.18         167.83           2,329.15         0.28         214.22           2,423.22         0.05         260.20           2,517.29         0.28         302.05           2,611.36         0.23         344.59           2,705.43         0.21         357.00           2,799.50         0.22         357.36           2,893.57         0.33         359.87           2,987.64         0.35         343.24           3,081.71         0.40         328.78           3,170.00         0.10         186.90           3,201.00         2.20         179.40           3,233.00         5.60         179.80           3,264.00         8.90         182.00           3,296.00         12.00         182.60           3,328.00         14.60         181.60           3,423.00         21.40         179.50           3,454.00         23.50         178.00           3,480.00         25.60         178.50           3,512.00         28.80         179.50           3,544.00	1,858.78	-1.04	6.48	1.33	0.13	0.13	-3.62
2,141.01       0.37       120.91         2,235.08       0.18       167.83         2,329.15       0.28       214.22         2,423.22       0.05       260.20         2,517.29       0.28       302.05         2,611.36       0.23       344.59         2,705.43       0.21       357.00         2,799.50       0.22       357.36         2,893.57       0.33       359.87         2,987.64       0.35       343.24         3,081.71       0.40       328.78         3,170.00       0.10       186.90         3,201.00       2.20       179.40         3,233.00       5.60       179.80         3,264.00       8.90       182.00         3,296.00       12.00       182.60         3,328.00       14.60       181.60         3,423.00       21.40       179.50         3,454.00       23.50       178.00         3,512.00       28.80       179.50         3,544.00       31.70       179.80         3,576.00       34.60       179.30	1,952.84	-1.32	7.07	1.64	0.16	-0.10	-18.28
2,235.08       0.18       167.83         2,329.15       0.28       214.22         2,423.22       0.05       260.20         2,517.29       0.28       302.05         2,611.36       0.23       344.59         2,705.43       0.21       357.00         2,799.50       0.22       357.36         2,893.57       0.33       359.87         2,987.64       0.35       343.24         3,081.71       0.40       328.78         3,170.00       0.10       186.90         3,233.00       5.60       179.80         3,264.00       8.90       182.00         3,296.00       12.00       182.60         3,328.00       14.60       181.60         3,423.00       21.40       179.50         3,454.00       23.50       178.00         3,512.00       28.80       179.50         3,544.00       31.70       179.80         3,576.00       34.60       179.30	2,046.91	-1.50	7.55	1.83	0.12	-0.11	9.69
2,329.15         0.28         214.22           2,423.22         0.05         260.20           2,517.29         0.28         302.05           2,611.36         0.23         344.59           2,705.43         0.21         357.00           2,799.50         0.22         357.36           2,893.57         0.33         359.87           2,987.64         0.35         343.24           3,081.71         0.40         328.78           3,170.00         0.10         186.90           3,201.00         2.20         179.40           3,233.00         5.60         179.80           3,264.00         8.90         182.00           3,296.00         12.00         182.60           3,328.00         14.60         181.60           3,360.00         17.00         180.40           3,391.00         19.50         181.00           3,423.00         21.40         179.50           3,454.00         23.50         178.00           3,512.00         28.80         179.50           3,544.00         31.70         179.80           3,576.00         34.60         179.30	2,140.98	-1.74	8.00	2.10	0.12	0.12	6.27
2,423.22     0.05     260.20       2,517.29     0.28     302.05       2,611.36     0.23     344.59       2,705.43     0.21     357.00       2,799.50     0.22     357.36       2,893.57     0.33     359.87       2,987.64     0.35     343.24       3,081.71     0.40     328.78       3,170.00     0.10     186.90       3,201.00     2.20     179.40       3,233.00     5.60     179.80       3,264.00     8.90     182.00       3,296.00     12.00     182.60       3,328.00     14.60     181.60       3,360.00     17.00     180.40       3,391.00     19.50     181.00       3,423.00     21.40     179.50       3,454.00     23.50     178.00       3,512.00     28.80     179.50       3,544.00     31.70     179.80       3,576.00     34.60     179.30	2,235.05	-2.04	8.29	2.41	0.30	-0.20	49.88
2,517.29       0.28       302.05         2,611.36       0.23       344.59         2,705.43       0.21       357.00         2,799.50       0.22       357.36         2,893.57       0.33       359.87         2,987.64       0.35       343.24         3,081.71       0.40       328.78         3,170.00       0.10       186.90         3,201.00       2.20       179.40         3,233.00       5.60       179.80         3,264.00       8.90       182.00         3,296.00       12.00       182.60         3,328.00       14.60       181.60         3,3423.00       19.50       181.00         3,423.00       21.40       179.50         3,454.00       23.50       178.00         3,512.00       28.80       179.50         3,544.00       31.70       179.80         3,576.00       34.60       179.30	2,329.12	-2.38	8.20	2.74	0.22	0.11	49.31
2,611.36     0.23     344.59       2,705.43     0.21     357.00       2,799.50     0.22     357.36       2,893.57     0.33     359.87       2,987.64     0.35     343.24       3,081.71     0.40     328.78       3,170.00     0.10     186.90       3,201.00     2.20     179.40       3,233.00     5.60     179.80       3,264.00     8.90     182.00       3,296.00     12.00     182.60       3,328.00     14.60     181.60       3,360.00     17.00     180.40       3,391.00     19.50     181.00       3,423.00     21.40     179.50       3,454.00     23.50     178.00       3,512.00     28.80     179.50       3,544.00     31.70     179.80       3,576.00     34.60     179.30	2,423.19	-2.57	8.03	2.93	0.26	-0.24	48.88
2,705.43         0.21         357.00           2,799.50         0.22         357.36           2,893.57         0.33         359.87           2,987.64         0.35         343.24           3,081.71         0.40         328.78           3,170.00         0.10         186.90           3,201.00         2.20         179.40           3,233.00         5.60         179.80           3,264.00         8.90         182.00           3,296.00         12.00         182.60           3,328.00         14.60         181.60           3,360.00         17.00         180.40           3,391.00         19.50         181.00           3,423.00         21.40         179.50           3,454.00         23.50         178.00           3,512.00         28.80         179.50           3,544.00         31.70         179.80           3,576.00         34.60         179.30	2,517.26	-2.46	7.79	2.80	0.26	0.24	44.49
2,799.50         0.22         357.36           2,893.57         0.33         359.87           2,987.64         0.35         343.24           3,081.71         0.40         328.78           3,170.00         0.10         186.90           3,201.00         2.20         179.40           3,233.00         5.60         179.80           3,264.00         8.90         182.00           3,296.00         12.00         182.60           3,328.00         14.60         181.60           3,391.00         19.50         181.00           3,423.00         21.40         179.50           3,454.00         23.50         178.00           3,480.00         25.60         178.50           3,512.00         28.80         179.50           3,544.00         31.70         179.80           3,576.00         34.60         179.30	2,611.33	-2.16	7.55	2.49	0.20	-0.05	45.22
2,893.57     0.33     359.87       2,987.64     0.35     343.24       3,081.71     0.40     328.78       3,170.00     0.10     186.90       3,201.00     2.20     179.40       3,233.00     5.60     179.80       3,264.00     8.90     182.00       3,296.00     12.00     182.60       3,328.00     14.60     181.60       3,360.00     17.00     180.40       3,391.00     19.50     181.00       3,423.00     21.40     179.50       3,454.00     23.50     178.00       3,512.00     28.80     179.50       3,544.00     31.70     179.80       3,576.00     34.60     179.30	2,705.40	-1.80	7.49	2.13	0.05	-0.02	13.19
2,987.64       0.35       343.24         3,081.71       0.40       328.78         3,170.00       0.10       186.90         3,201.00       2.20       179.40         3,233.00       5.60       179.80         3,264.00       8.90       182.00         3,296.00       12.00       182.60         3,328.00       14.60       181.60         3,391.00       19.50       181.00         3,423.00       21.40       179.50         3,454.00       23.50       178.00         3,512.00       28.80       179.50         3,544.00       31.70       179.80         3,576.00       34.60       179.30	2,799.47	-1.45	7.47	1.78	0.01	0.01	0.38
3,081.71     0.40     328.78       3,170.00     0.10     186.90       3,201.00     2.20     179.40       3,233.00     5.60     179.80       3,264.00     8.90     182.00       3,296.00     12.00     182.60       3,328.00     14.60     181.60       3,360.00     17.00     180.40       3,391.00     19.50     181.00       3,423.00     21.40     179.50       3,454.00     23.50     178.00       3,512.00     28.80     179.50       3,544.00     31.70     179.80       3,576.00     34.60     179.30	2,893.54	-1.00	7.46	1.33	0.12	0.12	2.67
3,170.00     0.10     186.90       3,201.00     2.20     179.40       3,233.00     5.60     179.80       3,264.00     8.90     182.00       3,296.00     12.00     182.60       3,328.00     14.60     181.60       3,360.00     17.00     180.40       3,391.00     19.50     181.00       3,423.00     21.40     179.50       3,454.00     23.50     178.00       3,512.00     28.80     179.50       3,544.00     31.70     179.80       3,576.00     34.60     179.30	2,987.60	-0.45	7.38	0.78	0.11	0.02	-17.68
3,201.00     2.20     179.40       3,233.00     5.60     179.80       3,264.00     8.90     182.00       3,296.00     12.00     182.60       3,328.00     14.60     181.60       3,360.00     17.00     180.40       3,391.00     19.50     181.00       3,423.00     21.40     179.50       3,454.00     23.50     178.00       3,512.00     28.80     179.50       3,544.00     31.70     179.80       3,576.00     34.60     179.30	3,081.67	0.10	7.12	0.21	0.11	0.05	-15.37
3,233.00     5.60     179.80       3,264.00     8.90     182.00       3,296.00     12.00     182.60       3,328.00     14.60     181.60       3,360.00     17.00     180.40       3,391.00     19.50     181.00       3,423.00     21.40     179.50       3,454.00     23.50     178.00       3,480.00     25.60     178.50       3,512.00     28.80     179.50       3,544.00     31.70     179.80       3,576.00     34.60     179.30	3,169.96	0.29	6.95	0.02	0.55	-0.34	-160.70
3,264.00     8.90     182.00       3,296.00     12.00     182.60       3,328.00     14.60     181.60       3,360.00     17.00     180.40       3,391.00     19.50     181.00       3,423.00     21.40     179.50       3,454.00     23.50     178.00       3,480.00     25.60     178.50       3,512.00     28.80     179.50       3,544.00     31.70     179.80       3,576.00     34.60     179.30	3,200.95	-0.33	6.96	0.64	6.78	6.77	-24.19
3,296.00     12.00     182.60       3,328.00     14.60     181.60       3,360.00     17.00     180.40       3,391.00     19.50     181.00       3,423.00     21.40     179.50       3,454.00     23.50     178.00       3,480.00     25.60     178.50       3,512.00     28.80     179.50       3,544.00     31.70     179.80       3,576.00     34.60     179.30	3,232.88	-2.51	6.97	2.81	10.63	10.63	1.25
3,328.00     14.60     181.60       3,360.00     17.00     180.40       3,391.00     19.50     181.00       3,423.00     21.40     179.50       3,454.00     23.50     178.00       3,480.00     25.60     178.50       3,512.00     28.80     179.50       3,544.00     31.70     179.80       3,576.00     34.60     179.30	3,263.62	-6.42	6.89	6.72	10.68	10.65	7.10
3,360.00     17.00     180.40       3,391.00     19.50     181.00       3,423.00     21.40     179.50       3,454.00     23.50     178.00       3,480.00     25.60     178.50       3,512.00     28.80     179.50       3,544.00     31.70     179.80       3,576.00     34.60     179.30	3,295.09	-12.22	6.65	12.50	9.69	9.69	1.88
3,391.00     19.50     181.00       3,423.00     21.40     179.50       3,454.00     23.50     178.00       3,480.00     25.60     178.50       3,512.00     28.80     179.50       3,544.00     31.70     179.80       3,576.00     34.60     179.30	3,326.23	-19.57	6.39	19.83	8.16	8.13	-3.13
3,423.00     21.40     179.50       3,454.00     23.50     178.00       3,480.00     25.60     178.50       3,512.00     28.80     179.50       3,544.00     31.70     179.80       3,576.00     34.60     179.30	3,357.02	-28.28	6.24	28.53	7.57	7.50	-3.75
3,454.00     23.50     178.00       3,480.00     25.60     178.50       3,512.00     28.80     179.50       3,544.00     31.70     179.80       3,576.00     34.60     179.30	3,386.45	-37.99	6.12	38.22	8.09	8.06	1.94
3,480.00     25.60     178.50       3,512.00     28.80     179.50       3,544.00     31.70     179.80       3,576.00     34.60     179.30	3,416.44	-49.17	6.08	49.39	6.16	5.94	-4.69
3,512.00 28.80 179.50 3,544.00 31.70 179.80 3,576.00 34.60 179.30	3,445.09	-61.00	6.35	61.22	7.02	6.77	-4.84
3,544.00     31.70     179.80       3,576.00     34.60     179.30	3,468.73	-71.80	6.67	72.02	8.12	8.08	1.92
3,576.00 34.60 179.30	3,497.19	-86.42	6.92	86.64	10.10	10.00	3.13
		-102.54	7.02	102.75	9.07	9.06	0.94
3,608.00 37.60 178.30		-120.04	7.16	120.23	9.10	9.06	-1.56
0.040.00 10.00 1====		-138.88	7.56	139.08	9.55	9.38	-3.13
3,640.00 40.30 177.60	3,602.36	-158.98	8.28	159.19	8.55	8.44	-2.19
3,671.00 42.70 177.60		-179.51	9.14	179.73	7.74	7.74	0.00
3,702.00 44.60 178.10		-200.89 -223.70	9.94	201.13	6.23	6.13	1.61 2.50



Company:

Unit Petroleum

Project:

Reno County, Kansas [NAD 83]

Site: Section 15 T25S-R10W

Well:

Feedlot 22 #1H

Wellbore: Design: ОН

Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference: Survey Calculation Method:

Database:

Well Feedlot 22 #1H

14' KB @ 1769.00usft (UDI 331)

14' KB @ 1769.00usft (UDI 331)

Grid

Minimum Curvature

Measured			Vertical			Vertical	Dogleg	Build	Turn
Depth (usft)	Inclination (°)	Azimuth (°)	Depth (usft)	+N/-S (usft)	+E/-W (usft)	Section (usft)	Rate (°/100usft)	Rate (°/100usft)	Rate (°/100usft)
3,765.00	48.40	179.70	3,691.41	-246.52	10.82	246.76	6.73	6.45	2.58
3,797.00	50.90	179.90	3,712.13	-270.90	10.90	271.12	7.83	7.81	0.63
3,828.00	51.90	180.20	3,731.47	-295.13	10.88	295.32	3.31	3.23	0.97
3,860.00	53.00	180.20	3,750.97	-320.50	10.79	320.66	3.44	3.44	0.00
3,892.00	54.10	181.10	3,769.99	-346.24	10.50	346.36	4.12	3.44	2.81
3,924.00	54.20	181.00	3,788.73	-372.17	10.02	372.25	0.40	0.31	-0.31
3,955.00	54.20	180.40	3,806.86	-397.31	9.71	397.35	1.57	0.00	-1.94
3,987.00	54.10	181.10	3,825.60	-423.25	9.37	423.25	1.80	-0.31	2.19
4,025.00	55.30	180.80	3,847.56	-454.26	8.86	454.20	3.22	3.16	-0.79
4,050.00	57.80	180.00	3,861.34	-475.11	8.72	475.03	10.35	10.00	-3.20
4,082.00	61.60	180.00	3,877.48	-502.74	8.72	502.63	11.88	11.88	0.00
4,114.00	65.70	180.00	3,891.68	-531.40	8.72	531.27	12.81	12.81	0.00
4,146.00	68.80	179.70	3,904.05	-560.91	8.80	560.75	9.73	9.69	-0.94
4,178.00	71.90	179.10	3,914.81	-591.04	9.11	590.87	9.85	9.69	-1.88
4,210.00	74.70	178.70	3,924.01	-621.68	9.70	621.50	8.83	8.75	-1.25
4,242.00	77.70	178.30	3,931.64	-652.75	10.52	652.57	9.45	9.38	-1.25
4,274.00	80.60	177.80	3,937.66	-684.15	11.59	683.99	9.19	9.06	-1.56
4,317.00	83.90	176.80	3,943.46	-726.71	13.59	726.59	8.01	7.67	-2.33
4,415.00	88.60	175.10	3,949.87	-824.22	20.50	824.32	5.10	4.80	-1.73
4,477.00	89.20	175.30	3,951.06	-885.99	25.69	886.26	1.02	0.97	0.32
4,539.00	89.60	175.30	3,951.71	-947.78	30.77	948.21	0.65	0.65	0.00
4,591.82	90.47	175.56	3,951.68	-1,000.43	34.98	1,000.99	1.71	1.64	0.49
Feedlot 22 1	H 1000' VS (10.1)								
4,600.00	90.60	175.60	3,951.60	-1,008.59	35.61	1,009.17	1.71	1.64	0.49
4,663.00	88.80	175.00	3,951.93	-1,071.37	40.77	1,072.12	3.01	-2.86	-0.95
4,725.00	89.10	175.10	3,953.07	-1,133.13	46.12	1,134.06	0.51	0.48	0.16
4,787.00	89.40	174.60	3,953.88	-1,194.87	51.68	1,195.99	0.94	0.48	-0.81
4,850.00	89.90	174.60	3,954.27	-1,257.59	57.61	1,258.91	0.79	0.79	0.00
4,912.00	90.30	174.60	3,954.16	-1,319.32	63.45	1,320.83	0.65	0.65	0.00
4,974.00	90.80	175.30	3,953.56	-1,381.07	68.90	1,382.77	1.39	0.81	1.13
5,037.00	90.80	174.60	3,952.68	-1,443.82	74.45	1,445.70	1.11	0.00	-1.11
5,098.00	91.70	174.70	3,951.35	-1,504.54	80.14	1,506.61	1.48	1.48	0.16
5,160.00	90.20	174.60	3,950.32	-1,566.26	85.92	1,568.53	2.42	-2.42	-0.16
5,222.00	91.00	174.30	3,949.67	-1,627.97	91.91	1,630.44	1.38	1.29	-0.48
5,283.00	89.40	174.70	3,949.46	-1,688.68	97.76	1,691.35	2.70	-2.62	0.66
5,345.00	90.00	174.90	3,949.79	-1,750.43	103.38	1,753.29	1.02	0.97	0.32
5,406.00	88.80	174.50	3,950.43	-1,811.16	109.01	1,814.21	2.07	-1.97	-0.66
5,468.00	89.10	175.10	3,951.56	-1,872.89	114.63	1,876.13	1.08	0.48	0.97
5,529.00	89.80	174.80	3,952.15	-1,933.65	120.00	1,937.07	1.25	1.15	-0.49
5,591.00	90.70	174.50	3,951.88	-1,995.38	125.78	1,999.00	1.53	1.45	-0.48
5,591.66	90.71	174.50	3,951.87	-1,996.04	125.84	1,999.65	0.94	0.81	-0.48
	I 2000' VS (10.1)					George geo.		200	
5,653.00	91.20	174.20	3,950.85	-2,057.07 -2,117.74	131.88 138.20	2,060.90 2,121.78	0.94 2.67	0.81 -2.62	-0.48 -0.49



Company:

Unit Petroleum

Project:

Reno County, Kansas [NAD 83]

Site:

Section 15 T25S-R10W

Well:

Feedlot 22 #1H

Wellbore: Design:

ОН ОН Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

**Survey Calculation Method:** 

Database:

Well Feedlot 22 #1H

14' KB @ 1769.00usft (UDI 331)

14' KB @ 1769.00usft (UDI 331)

Minimum Curvature

Measured			Vertical			Vertical	Dogleg	Build	Turn
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Section	Rate	Rate	Rate
(usft)	(°)	(°)	(usft)	+N/-S (usft)	+E/-VV (usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)
	( )	(/	, ,	(word)	(aoit)				
5,776.00	89.70	173.60	3,950.80	-2,179.37	144.95	2,183.65	0.51	0.16	-0.48
5,837.00	90.20	174.10	3,950.85	-2,240.02	151.49	2,244.53	1.16	0.82	0.82
5,899.00	89.40	174.20	3,951.07	-2,301.70	157.81	2,306.43	1.30	-1.29	0.16
5,960.00	89.80	173.90	3,951.50	-2,362.37	164.13	2,367.32	0.82	0.66	-0.49
			Marie Company Company	THE STREET OF STREET					
6,022.00	89.90	174.50	3,951.66	-2,424.05	170.40	2,429.22	0.98	0.16	0.97
6,083.00	90.50	174.40	3,951.45	-2,484.76	176.30	2,490.13	1.00	0.98	-0.16
6,144.00	89.40	174.20	3,951.50	-2,545.46	182.36	2,551.04	1.83	-1.80	-0.33
6,205.00	89.60	174.10	3,952.03	-2,606.14	188.57	2,611.93	0.37	0.33	-0.16
6,266.00	90.10	173.80	3,952.19	-2,666.80	195.00	2,672.82	0.96	0.82	-0.49
6,328.00	89.40	173.90	3,952.46	-2,728.44	201.64	2,734.69	1.14	-1.13	0.16
0,320.00	09.40	175.90	3,932.40	-2,720.44	201.04	2,734.03	1.14	-1.15	0.10
6,389.00	89.80	172.90	3,952.89	-2,789.03	208.65	2,795.54	1.77	0.66	-1.64
6,451.00	90.20	173.40	3,952.89	-2,850.59	216.05	2,857.36	1.03	0.65	0.81
6,513.00	89.10	173.30	3,953.27	-2,912.17	223.23	2,919.20	1.78	-1.77	-0.16
6,577.00	89.70	172.60	3,953.94	-2,975.68	231.08	2,983.00	1.44	0.94	-1.09
6,590.93	89.70	172.69	3,954.01	-2,989.50	232.87	2,996.88	0.62	0.00	0.63
	H 3000' VS (10.1								
0.044.00	00.70	470.00	0.054.07	0.000.10	000.10	0.040.70	0.00	0.00	0.00
6,641.00	89.70	173.00	3,954.27	-3,039.18	239.10	3,046.79	0.62	0.00	0.63
6,705.00	89.80	173.10	3,954.55	-3,102.71	246.85	3,110.59	0.22	0.16	0.16
6,767.00	89.90	172.80	3,954.71	-3,164.24	254.46	3,172.40	0.51	0.16	-0.48
6,831.00	89.90	172.70	3,954.83	-3,227.73	262.54	3,236.19	0.16	0.00	-0.16
6,893.00	89.80	172.40	3,954.99	-3,289.20	270.57	3,297.96	0.51	-0.16	-0.48
6,956.00	90.20	172.60	3,954.99	-3,351.66	278.80	3,360.72	0.71	0.63	0.32
7,019.00	88.80	172.20	3,955.54	-3,414.11	287.13	3,423.47	2.31	-2.22	-0.63
7,082.00	88.10	172.30	3,957.24	-3,476.51	295.62	3,486.19	1.12	-1.11	0.16
3.55	88.10	170.80	3,959.30	-3,537.80	304.73	3,547.82	2.42	0.00	-2.42
7,144.00						(A)			
7,208.00	87.70	170.90	3,961.64	-3,600.94	314.90	3,611.35	0.64	-0.63	0.16
7,273.00	87.70	170.80	3,964.25	-3,665.06	325.22	3,675.87	0.15	0.00	-0.15
7,336.00	88.10	170.60	3,966.56	-3,727.19	335.40	3,738.39	0.71	0.63	-0.32
7,400.00	87.80	169.00	3,968.85	-3,790.14	346.72	3,801.78	2.54	-0.47	-2.50
7,463.00	88.50	168.90	3,970.88	-3,851.94	358.79	3,864.05	1.12	1.11	-0.16
7,527.00	89.50	169.30	3,972.00	-3,914.77	370.89	3,927.36	1.68	1.56	0.63
7,582.82	89.77	168.24	3,972.36	-3,969.52	381.76	3,982.53	1.96	0.48	-1.90
	H 4000' VS (10.1)		0,072.00	-0,000.02	551.70	0,002.00	1.00	0.40	-1.50
			3 072 20	3 076 55	393 34	3 080 63	1 06	0.48	-1.90
7,590.00	89.80	168.10	3,972.38	-3,976.55	383.24	3,989.62	1.96		
7,654.00	90.00	168.00	3,972.50	-4,039.16	396.49	4,052.76	0.35	0.31	-0.16
7,719.00	90.10	167.70	3,972.44	-4,102.71	410.17	4,116.85	0.49	0.15	-0.46
7,781.00	91.30	166.20	3,971.68	-4,163.10	424.17	4,177.80	3.10	1.94	-2.42
7,845.00	91.20	166.00	3,970.29	-4,225.21	439.54	4,240.53	0.35	-0.16	-0.31
7,908.00	91.20	165.60	3,968.97	-4,286.27	454.99	4,302.21	0.63	0.00	-0.63
7,972.00	91.60	165.50	3,967.40	-4,348.23	470.96	4,364.82	0.64	0.63	-0.16
8,035.00	91.70	165.20	3,965.59	-4,409.15	486.88	4,426.39	0.50	0.16	-0.48
								0.78	-0.48
8,099.00	92.20	164.70	3,963.41	-4,470.92	503.49	4,488.83	1.10	0.76	-0.70
8,162.00	90.60	164.20	3,961.87	-4,531.60	520.37	4,550.19	2.66	-2.54	-0.79



Company:

Unit Petroleum

Project: Reno County, Kansas [NAD 83]

Site: Section 15 T25S-R10W

Well:

Feedlot 22 #1H

Wellbore: OH
Design: OH

Local Co-ordinate Reference:

TVD Reference:
MD Reference:

North Reference:

Survey Calculation Method:

Database:

Well Feedlot 22 #1H

14' KB @ 1769.00usft (UDI 331) 14' KB @ 1769.00usft (UDI 331)

Grid

Minimum Curvature

Measured			Vertical			Vertical	Dogleg	Build	Turn
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Section	Rate	Rate	Rate
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)
8,226.00	91.30	164.30	3,960.81	-4,593.18	537.74	4,612.49	1.10	1.09	0.16
8,289.00	90.00	164.30	3,960.10	-4,653.83	554.79	4,673.83	2.06	-2.06	0.00
8,353.00	90.20	164.40	3,959.98	-4,715.46	572.05	4,736.16	0.35	0.31	0.16
8,417.00	90.60	164.00	3,959.54	-4,777.04	589.48	4,798.45	0.88	0.63	-0.63
8,479.00	91.30	164.50	3,958.51	-4,836.70	606.31	4,858.80	1.39	1.13	0.81
8,542.00	89.20	164.90	3,958.23	-4,897.46	622.93	4,920.24	3.39	-3.33	0.63
8,606.00	89.80	165.10	3,958.79	-4,959.28	639.49	4,982.73	0.99	0.94	0.31
8,668.00	90.50	165.20	3,958.63	-5,019.21	655.38	5,043.31	1.14	1.13	0.16
8,732.00	90.60	164.00	3,958.02	-5,080.91	672.38	5,105.70	1.88	0.16	-1.88
8,735.95	90.65	164.01	3,957.97	-5,084.70	673.47	5,109.54	1.27	1.23	0.31
Feedlot 22 1h	I PBHL (10.1)								
8,797.00	91.40	164.20	3,956.88	-5,143.41	690.18	5,168.93	1.27	1.23	0.31
Last MWD Su	ırvey								
8,841.00	91.40	164.20	3,955.81	-5,185.73	702.16	5,211.74	0.00	0.00	0.00

Design Anno	otations					
	Measured	Vertical	Local Coo	rdinates		
	Depth (usft)	Depth (usft)	+N/-S	+E/-W		
	(uoit)	(doit)	(usft)	(usft)	Comment	
	8,797.00	3,956.88	-5,143.41	690.18	Last MWD Survey	
	8,841.00	3,955.81	-5,185.73	702.16	Projection to TD	

Checked By:	Approved By:	Date:	
,			



Customer	1 . 1	DI	1		TI	ease No						Date			ELLIPSIA CONTRACTOR CO		
Lease 2	0/	Petk	oled	1.11	<del> </del>	Vell#2	-1 1	4				18	- 10	-14			
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Volume 8	Volume/	/	om		То		Pac	i			Min			10 Min.			
Max Press		S.O Fr	om		То		Fra	C			Avg			15 Min.			
Well Connecti			bmi p		То		-				HHP Used			Annulus Pres	sure		
P19855	Packer D	epth Fre	om		To	Ctation	Flus		-		Gas Volum			Total Load			
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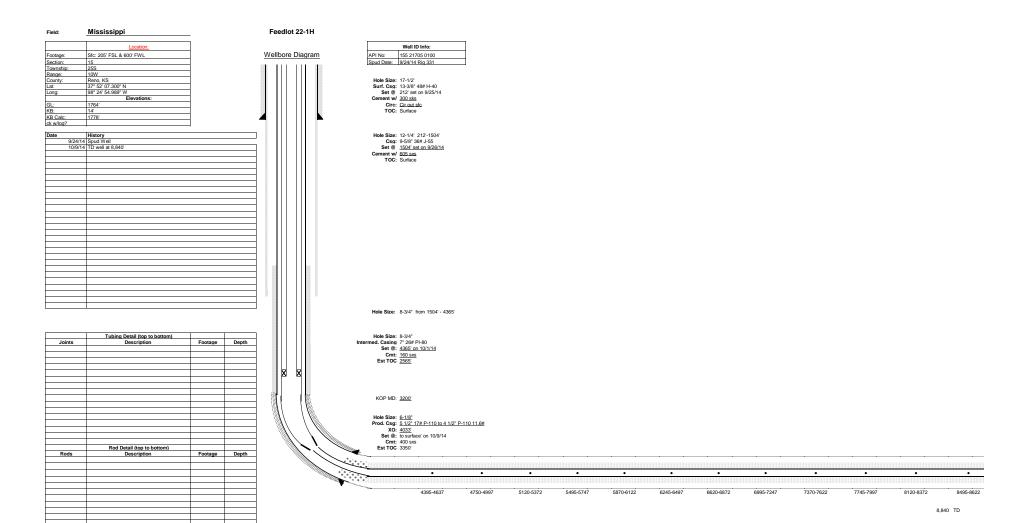
Customer	14	Del	rale	um	10		Lease No.				Marian Maria America (Article Article			Date	Date							
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	Lease Field Order# Station Production  PIPE DATA PER asing Size Tubing Size Shots/  PIPE DATA PER asing Size Tubing Size Shots/  PIPE DATA PER asing Size Tubing Size Shots/  Polume Construction Prometax Press  From Max Press From Packer Depth From  Packer Depth From  Packer Depth Packer Depth From  Pressure Scaling Tubing Pressure Pressure  PRESSURE PRESSURE  PRES							Pad					Min			***	10	Min.				
Max Press	Lease Field Order# Station Profit  PIFE DATA PER  asing Size Tubing Size Shots/  From  Annulus Vol. From  Bervice Units 38970 1989  Bervice Units 389							Fra	ac		recommendate for the first feet recommendate for the feet feet feet feet feet feet feet	$\dagger$	Avg		Manual Land - Christ And Cales Salt Ann	-	15	Min.				
District Control of the Party o	the Real Property lies, the Persons named in	ulus V	/ol			To						$\dagger$	HHP Used				An	nulus Pr	essur	e		
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Updated: 12/22/2014